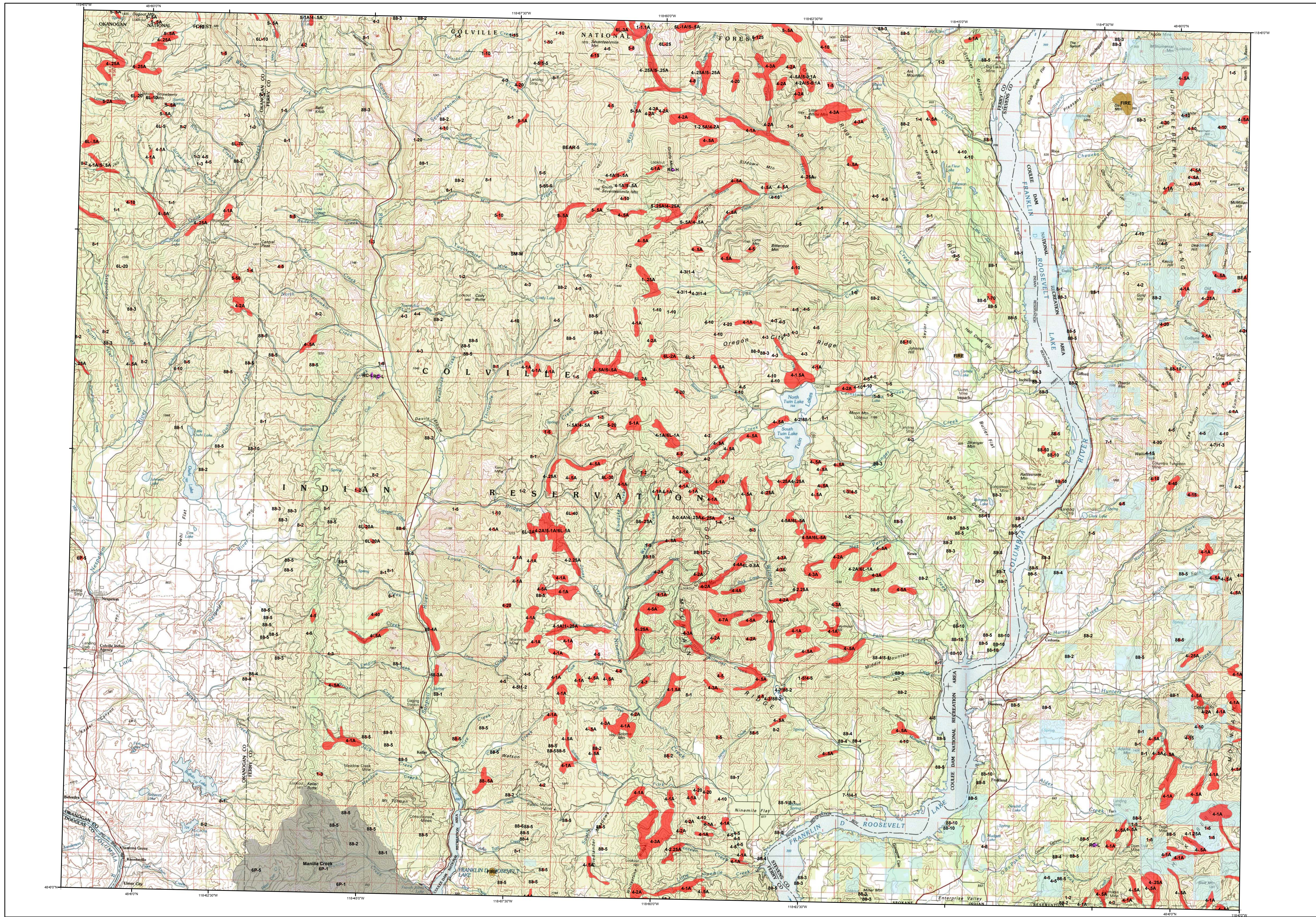


2007 Aerial Insect and Disease Survey

USGS 100K Quad: Nespelem - A148118; 7B



| Defoliators | | |
|-------------|------------------------------|-------------------------------|
| Code | Damaging Agent | Primary Host |
| AS | Spruce aphid | Silka spruce |
| BS | Western blackheaded budworm | Hemlock, spruce, true fir |
| BM | Modio budworm | White fir |
| BP | Sugar pine tortrix | Lodgepole, ponderosa pines |
| BS | Western spruce budworm | True fir, Douglas fir, spruce |
| BY | Bynum's light/lupinodermella | Ponderosa pine |
| CH | Larch | Western larch |
| HL | Western hemlock looper | Western hemlock looper |
| LO | Green striped forest looper | Douglas fir, Western hemlock |
| LL | Larch looper | Western larch |
| LS | Black pine needle scale | Ponderosa pine |
| MD | Douglas fir budmoth | Douglas fir |
| ML | Larch budmoth | Western larch |
| MN | Douglas fir needle midge | Western larch |
| MS | Spruce budmoth | Spruce |
| ND | Needle miner | Douglas fir |
| NJ | Needle miner | Jeffrey pine |
| NK | Needle miner | Douglas fir, ponderosa pine |
| NL | Needle miner | Lodgepole pine |
| NM | Needle miner | Conifer |
| NP | Needle miner | Ponderosa pine |
| NS | Needle miner | Spruce pine |
| NV | Needle miner | True fir |
| NT | Needle miner | Western white pine |
| CL | Western oak looper | Oaks |
| PB | Pine butterfly | Ponderosa pine |
| PC | Pine needle cast | Ponderosa pine |
| PH | Phantom hemlock looper | Hemlock, Douglas fir |
| PM | Pandora moth | Ponderosa, Jeffrey pines |
| PN | Pine needle scale | Ponderosa, Jeffrey pines |
| PS | Pine needle scale | Ponderosa, Jeffrey pines |
| RC | Needle cast | Western larch |
| S | Spider mite | Conifer |
| SA | Sawfly | Conifer |
| SD | Sawfly | Douglas fir |
| SH | Sawfly | Conifer |
| SK | Sawfly | Knoctone pine |
| SL | Sawfly | Lodgepole pine |
| SM | Satin moth | Aspen |
| SNC | Swiss needle cast | Douglas fir |
| SP | Sawfly | Ponderosa pine |
| TA | Tent caterpillar, alder | Western larch |
| TC | Tent caterpillar, other | Alder |
| TM | Douglas fir tussock moth | True fir, Douglas fir |
| TS | Tent caterpillar, aspen | Aspen |

USGS 100K Quad: Nespelem - A148118; 7B
2007 Aerial Insect and Disease Detection Survey
Mapscale: 1:100,000
Date: December 3, 2007

Legend

Defoliating Agents

Mortality Agents

Other Damage

WadNR Managed Lands

Source: Northwest Coordination Center

Source: Washington Dept. of Natural Resources

The map base was created with TOPOI (Copyright 2001, National Geographic), available online at: www.ngmapstore.com

A data dictionary, digital copies of this map and ArcGIS insect and disease data are available at: www.fs.fed.us/r6/nr/rid/data.shtml

Vicinity Map

How the Aerial Surveys are Conducted

Data represented on this map are based on trees visibly affected by forest insects and diseases detected and recorded during aerial survey flights conducted by the USDA Forest Service and the Washington Department of Natural Resources. Observers have just a few seconds to recognize the color difference between healthy and damaged trees of different species; diagnose causal agents correctly; estimate intensity; delineate the extent of damage; and precisely record this information on a georeferenced, digital map. Air turbulence, cloud shadows, distance from aircraft, haze, smoke and observer experience can all affect the quality of the survey. These data summaries provide an estimate of conditions on the ground and may differ from estimates derived by other methods.

The aerial survey provides information on the current status for many causal agents, and is important when examining insect activity trends by comparing historical and current survey data over large areas.

Overview surveys are a 'snap shot' in time and therefore may not be timed to accurately capture the true extent or severity of a particular disturbance activity. Specially designed surveys with modified flight patterns and timing may be conducted to more accurately delineate the extent and severity of a particular disturbance agent. Special surveys, such as Swiss needle cast surveys, are conducted when resources are available to address situations of sufficient economic, political or environmental importance.

DIRECT ALL INQUIRIES TO:

Washington State Department of
Natural Resources
Resource Protection
Forest Health
1111 Washington St. SE
Olympia, WA 98504

-- OR --

USDA Forest Service, Region 6
Natural Resources
Forest Health Protection
PO Box 3623
Portland, Oregon 97208

****DISCLAIMER****

The insect and disease data presented should only be used as an indicator of insect and disease activity, and should be ground-checked for precise location, extent, severity and causal agent.

Color coded polygons show locations where trees were recently killed or defoliated. Intensity of damage is variable and not all trees within coded polygons are dead or defoliated.

The cooperators reserve the right to correct, update, modify or replace GIS products without notice. Using this map for purposes other than those for which it was intended may yield inaccurate or misleading results.